



Economic Impact Analysis Virginia Department of Planning and Budget

18 VAC 60-20 – Regulations Governing the Practice of Dentistry and Dental Hygiene
Department of Health Professions
May 29, 2007

Summary of the Proposed Amendments to Regulation

Pursuant to Chapter 858 of the 2006 Acts of Assembly, the Board of Dentistry (Board) proposes to establish the education and training requirements for dental hygienists to administer Schedule VI nitrous oxide and oxygen inhalation analgesia and, to persons 18 years of age or older, Schedule VI local anesthesia under a dentist's direction.

Result of Analysis

The benefits likely exceed the costs for all proposed changes.

Estimated Economic Impact

Chapter 858 of the 2006 Acts of Assembly amended Section § [54.1-2722](#) of the Code of Virginia to state that “A dentist may ... authorize a dental hygienist under his direction to administer Schedule VI nitrous oxide and oxygen inhalation analgesia and, to persons 18 years of age or older, Schedule VI local anesthesia. In its regulations, the Board of Dentistry shall establish the education and training requirements for dental hygienists to administer such controlled substances under a dentist's direction.” According to the American Dental Hygienists’ Association, dental hygienists are legally permitted to administer local anesthesia in 38 other states. To implement Chapter 858, the Board reviewed educational and training requirements in other states. The lowest number of required hours of education was found in Kansas (12) with the highest number found in Louisiana (72). The Board proposes to require that in addition to passing an examination, Virginia dental hygienists have at least 36 hours of training (including both didactic and clinical) in the following topics in order to be eligible to administer both local anesthesia and nitrous oxide/inhalation analgesia:

- a. Patient physical and psychological assessment;
- b. Medical history evaluation and record keeping;
- c. Neurophysiology of local anesthesia;
- d. Pharmacology of local anesthetics and vasoconstrictors;
- e. Anatomical considerations for local anesthesia;
- f. Techniques for maxillary infiltration and block anesthesia;
- g. Techniques for mandibular infiltration and block anesthesia;
- h. Local and systemic anesthetic complications;
- i. Management of medical emergencies;
- j. Clinical experiences in maxillary and mandibular infiltration and block injections;
- k. Pharmacology of nitrous oxide;
- l. Adjunctive uses of nitrous oxide for dental patients; and
- m. Clinical experiences in administering nitrous oxide and local anesthesia injections on patients.

In order to qualify for just nitrous oxide/inhalation analgesia administration, the Board proposes to require passage of an examination and at least 8 hours of training (including both didactic and clinical) in the following topics:

- a. Patient physical and psychological assessment;
- b. Medical history evaluation;
- c. Equipment and techniques used for administration of nitrous oxide;
- d. Neurophysiology of nitrous oxide administration;
- e. Pharmacology of nitrous oxide;
- f. Record keeping, medical and legal aspects of nitrous oxide;
- g. Adjunctive uses of nitrous oxide for dental patients; and
- h. Clinical experiences in administering nitrous oxide, including training with live patients.

The proposed regulations also include language concerning qualifications for dental hygienists who have a certificate or credential for administration of nitrous oxide/inhalation analgesia or local anesthesia in another U.S. jurisdiction. The proposed regulations state that if the qualifications on which the credential or certificate was issued were substantially equivalent in hours of instruction and course content to those set forth in these regulations, then the hygienist qualifies for administration in Virginia. Also, if the certificate or credential issued by another jurisdiction was not substantially equivalent, the hygienist can still qualify if she documents experience in such administration for at least 24 of the past 48 months preceding application for licensure in Virginia.

The proposed regulations also specify that “A dentist who provides direction for the administration of nitrous oxide/inhalation analgesia or local anesthesia shall ensure that the dental hygienist has met the qualifications for such administration” The hygienist’s

administration must be under the direction of the dentist. The dentist is fully responsible for the qualifications and work of the hygienist.

The proposed regulations clearly provide a net benefit for dentists since dentists are presented with a new option for use of their employees' time. Dentists will only pursue this option if they decide it is to their benefit. Hygienists will become more useful for the dentists that choose to have their hygienists administer nitrous oxide/inhalation analgesia or local anesthesia. Thus, the demand for hygienist' time may increase, and they may be rewarded with higher pay. Given the proposed qualification requirements and clarity that the dentist is fully responsible for the work performed, it appears that there will likely not be a significant increase in safety risk to patients.

Businesses and Entities Affected

The proposed amendment affects dentists, dental hygienists, and their patients. According to the department, there are 5,890 dentists and 4,307 dental hygienists licensed in Virginia. Based on Virginia Employment Commission data, there are 2,773 dental practices in the Commonwealth. All of the dental practices are small businesses.

Localities Particularly Affected

The proposed amendment does not disproportionately affect specific localities.

Projected Impact on Employment

Some dental hygienists may work moderately greater hours.

Effects on the Use and Value of Private Property

The proposed amendment will allow dental practices to use their staff somewhat more productively. Thus, the value of some dental practices may moderately increase.

Small Businesses: Costs and Other Effects

The proposed amendment may moderately reduce costs for some small businesses, i.e., dental practices.

Small Businesses: Alternative Method that Minimizes Adverse Impact

The proposed amendment does not adversely affect small businesses.

Legal Mandate

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.H of the Administrative Process Act and Executive Order Number 36 (06). Section 2.2-4007.H requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. Further, if the proposed regulation has adverse effect on small businesses, Section 2.2-4007.H requires that such economic impact analyses include (i) an identification and estimate of the number of small businesses subject to the regulation; (ii) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the regulation, including the type of professional skills necessary for preparing required reports and other documents; (iii) a statement of the probable effect of the regulation on affected small businesses; and (iv) a description of any less intrusive or less costly alternative methods of achieving the purpose of the regulation. The analysis presented above represents DPB's best estimate of these economic impacts.